

Serial No. 10/784,886

Attorney Docket No. 11-226

Enter
[Signature]
LISTING OF CLAIMS:

The following listing of claims replaces all previous versions, and listings of claims in the present application.

1. (Previously Presented) An apparatus for detecting a rollover of a vehicle, comprising:
a roll angular velocity detector periodically detecting a roll angular velocity of the vehicle at intervals;

a memory unit memorizing values of the roll angular velocity periodically detected by the roll angular velocity detector;

a predictive angular velocity calculator calculating a predictive value of the roll angular velocity to be expected after an elapse of a predetermined period of time on the basis of a present value and a past value of the roll angular velocity memorized in the memory unit; and

a rollover prediction unit predicting whether or not there is a possibility that the vehicle will make a rollover, on the basis of the predictive value of the roll angular velocity, and one of: a value of the roll angle of the vehicle and a predictive value of the roll angle to be expected after the elapse of the predetermined period of time.

2. (Previously Presented) The apparatus according to claim 1, wherein the predictive angular velocity calculator is configured to use the present and past values of the roll angular velocity to obtain a derivative of the roll angular velocity and to calculate the predictive value of the roll angular velocity using a Taylor's expansion of the derivative directed to a time instant after an elapse of the predetermined period of time.